

AMENDMENTS TO THE CLAIMS

1-37. **(Canceled)**

38. **(Currently Amended)** A method of treating melanoma cancer in a subject, comprising topically administering to a subject in need thereof a composition comprising a therapeutically effective amount of between about 0.01% and 30% w/w of Coenzyme Q10, thereby treating melanoma cancer in the subject.

39. **(Currently Amended)** A method of treating melanoma cancer in a subject, comprising topically administering to a subject in need thereof a composition comprising an effective amount of between about 1.5 and 4.0 mg of Coenzyme Q10 per kg of body weight of the subject, thereby treating melanoma cancer in the subject.

40. **(Previously Presented)** The method of claim 38 or 39, wherein the subject is human.

41. **(Previously Presented)** The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is formulated as a topical cream.

42. **(Previously Presented)** The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is liposomal.

43. **(Previously Presented)** The method of claim 38, wherein the composition comprises about 1% to about 25% w/w of Coenzyme Q10.

44. **(Previously Presented)** The method of claim 38, wherein the composition comprises about 1% to about 20% w/w of Coenzyme Q10.

45-59. **(Canceled)**

60. **(Previously Presented)** The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is administered with an additional anti-cancer agent.
61. **(Previously Presented)** The method of claim 60, wherein the additional anti-cancer agent is a chemotherapeutic agent.
62. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of cyclophosphamide, taxanes, busulfan, methotrexate, daunorubicin, doxorubicin, melphalan and cladribine.
63. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of vincristine, vinblastine, chlorambucil, tamoxifen, taxol, camptothecin, actinomycin-D, mitomycin C and combretastatin.
64. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of cisplatin, etoposide, adriamycin, verapamil and podophyllotoxin.
65. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is 5-fluorouracil.
66. **(Previously Presented)** The method of claim 60, wherein the additional agent is an anti-angiogenic agent.
67. **(Previously Presented)** The method of claim 60, wherein the additional anti-cancer agent is co-administered with the composition comprising Coenzyme Q10 to the subject.
68. **(Previously Presented)** The method of claim 60, wherein administration of the additional anti-cancer agent precedes administration of the composition comprising Coenzyme Q10 to the subject.

69. **(Previously Presented)** The method of claim 60, wherein administration of the additional anti-cancer agent follows administration of the composition comprising Coenzyme Q10 to the subject.
70. **(Currently Amended)** The method of claim 38 or 39, wherein treatment results in inhibition of ~~tumor~~ melanoma cell growth in the subject.
71. **(Currently Amended)** The method of claim 38 or 39, wherein treatment results in an increase in apoptosis of ~~tumor~~ melanoma cells in the subject.
72. **(Currently Amended)** The method of claim 38 or 39, wherein treatment results in inhibition of ~~tumor~~ melanoma-mediated angiogenesis in the subject.
73. **(Currently Amended)** A method for inhibiting ~~tumor cell growth~~ proliferation of melanoma cells in a subject, the method comprising topically administering to a subject having a ~~tumor~~ melanoma a pharmaceutical composition comprising Coenzyme Q10, thereby inhibiting ~~tumor growth cell~~ proliferation of melanoma cells in the subject.
74. **(Previously Presented)** The method of claim 73, wherein the subject is human.
75. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.
76. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.
77. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.
78. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.

79. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.

80. **(Currently Amended)** A method of inducing apoptosis in a ~~tumor melanoma~~ cell in a subject, the method comprising topically administering to a subject having a ~~tumor melanoma~~ a pharmaceutical composition comprising Coenzyme Q10, thereby inducing apoptosis in a ~~tumor melanoma~~ cell in the subject.

81. **(Previously Presented)** The method of claim 80, wherein the subject is human.

82. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in at least about 30% of ~~tumor melanoma~~ cells.

83. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 50% of ~~tumor melanoma~~ cells.

84. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 60% of ~~tumor melanoma~~ cells.

85. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 75% of ~~tumor melanoma~~ cells.

86. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 90% of ~~tumor melanoma~~ cells.

87. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 99.9% of ~~tumor melanoma~~ cells.

88. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.

89. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.
90. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.
91. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.
92. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.
93. **(Currently Amended)** A method of inhibiting ~~tumor melanoma~~-mediated angiogenesis in a subject, the method comprising topically administering to a subject having ~~a tumor melanoma~~ a pharmaceutical composition comprising Coenzyme Q10, thereby inhibiting ~~tumor melanoma~~-mediated angiogenesis in a subject.
94. **(Previously Presented)** The method of claim 93, wherein the subject is human.
95. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.
96. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.
97. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.
98. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.

99. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.